R, SAS or Python in Business Analytics

Sumit Gautam
ID - 1018435
Advisor: Dr. Illya Mowerman
Ernest C.Trefz School of Business
University Of Bridgeport, Bridgeport, CT, 06604

Abstract

R, SAS, and python are the most used statistical programming languages. Analytics market has been growing up with the double pace and there are many tools available in the market. This study will be conducted to show how data analytics are using these tools to make use of the data in the organization. This study will detailly analyze these three analytics tools on the basis of their uses, functions, and capabilities. Furthermore, the comparisons between these tools will be done to show the differentiation and effectiveness of their use in the different organizations. So, this study will moreover focus on analyzing R, SAS, and Python, explaining their uses and specialties in business analytics.

Introduction

The methods and techniques that are used to measure the organizational performance is referred as business analytics. These days business analytics are the major differentiator in the organizations and is the key to remain in the business competition. In the business decision making process, business analytics provides support in the tactical fields. Business analytics in the business is moreover concerned with the statistical and quantitative analysis of the data. Business analytics cover up the large portion of the decision support system. There is the requirement of the continuous improvement in the methods and the techniques to keep the business competition alive. R, SAS and python are the most used tools by the business analyst in the past years. The competition in this industry is very dynamic so, it's very difficult to answer which is the best tools for the business analyst. The comparisons that has been done years ago might not be relevant today because of the technological improvement and advancement. The debate between R, SAS and python is similar like choosing between Mac, Linux and Windows. There is place for all of the three depending upon the need and requirement in the business world.

Research Methodology

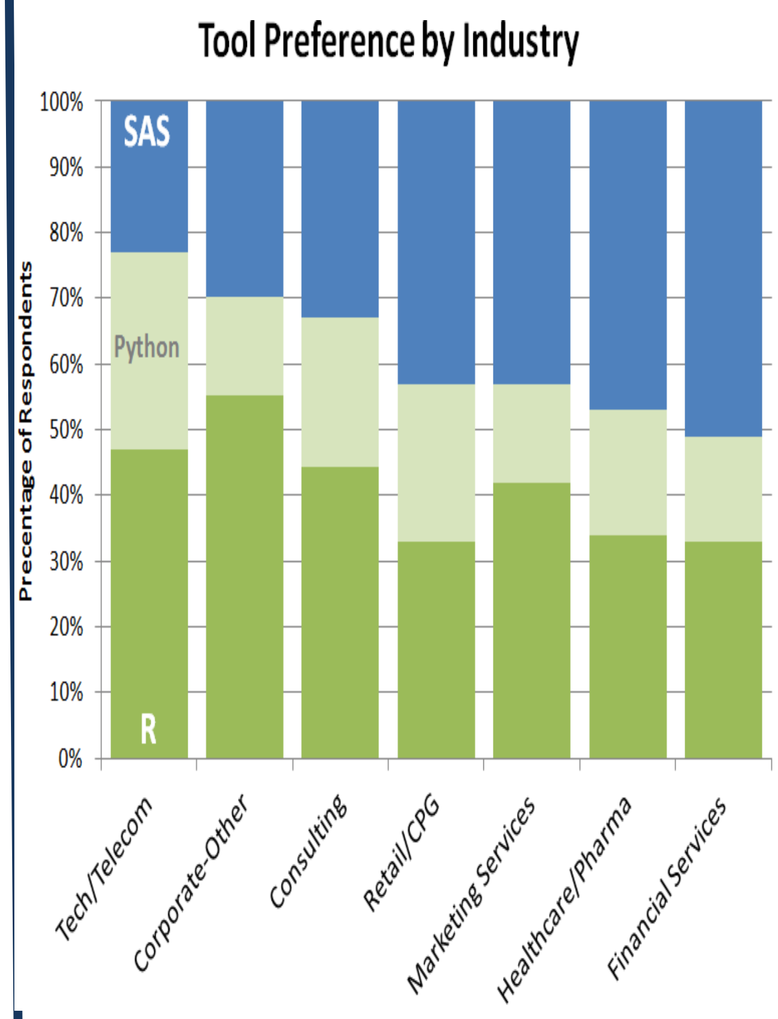
The research method used is exploratory research method where observations and surveys are the ways of data collection. The secondary method of data collections is online research, literature research, and case study research.

Findings

The attributes are used to compare and contrast between the R,SAS and Python. The attributes are as follows:

- Data management capabilities
- Complexity of learning
- Graphical Presentation
- Cost effectiveness
- Advancement capabilities
- Job opportunities
- Deep learning facilities
- Customer services and supports

Charts



Analysis and conclusions

There can't be a comparison between R, SAS, and Python on one situation. They have their advantages and disadvantages depending upon the circumstances. Python communities are developing enhancements to Python capabilities. R has the highest time performance in the smallest datasets and SAS is preferred for handling the large datasets. So, depending upon the task and circumstances these tools can be chosen.

References